



Instructional Technology Newsline

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Department of Elementary and Secondary Education

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◆ **Instructional Technology Update**

E-Rate Update

The application window for Cycle 3 funds (for services provided July 2000 through June 2001) closed in late January. We hope that many more schools completed applications this year than in the previous years. While the amounts discounted to Missouri public schools and libraries and nonpublic schools are significant, less than one percent of the total e-rate funds thus far are coming to Missouri.

Also in January, the schools and Libraries Division reported cumulative data for Cycle 2. \$2.25 billion in discounts will be distributed for services completed July 1999 through June 2000. Missouri has received funding commitment letters totaling \$28,587,328.37, with over \$16.1 million going to 299 public school districts, over \$11.3 million for 6 public school consortium applicants, over \$520,000 to 74 nonpublic schools, and approximately \$570,000 for 39 public library applicants. During Cycle I (January 1998 through June 1999), Missouri entitles received nearly \$24 million of the total \$1.67 billion distributed nationwide.

If you have any questions about the e-rate program in Missouri contact our office or Jeanne Sullivan at MOREnet.

State Approval of District Technology Plans

If your district has applied for e-rate funds or is a MOREnet member, you must have an up-to-date, state-approved technology plan. In January, schools should have received the mailing about our plans to approve district technology plans in April. State approval is good for up to three years. If your technology plan has been in operation for three years or more, you need to update your plan and submit it for state approval. Plans approved in December 1997, during our last comprehensive approval session, should be updated and resubmitted for review in April.

Call our office if you have any questions about the review process and criteria or would like to be trained as a technology plan evaluator. [Note that nonpublic school personnel should contact MO-CAPE. The Missouri Council For American Private Education reviews and approves technology plans for private schools in the state using a similar process.]

Consolidated Technology Manuals and Workshops; Automated Application Forms

Staff have been working hard the past two months in consolidating the technology grant programs into one manual, revising forms so they are more uniform, and preparing a consolidated workshop presentation. We will distribute the Applicant's Guide in late February and conduct the workshops in April.

By the time we conduct the workshops, we should know which applications likely will be automated for 2001. We are hopeful that our entitlement grants, the Technology Acquisition and Enhancement and the VIDEO grants, will be automated by late summer / early fall. Also, we will be completing the automation of the Technology Literacy Challenge Fund grants to include the budgeting and payment processes.

Proposed VIDEO Program Legislation

We know that many of you are concerned about the VIDEO Program whose funds dropped drastically this past year. DESE has been informed of three bills that have been filed recently in the 2000 General Assembly. In the House of Representatives, Representative Scott Lakin filed HB 1713 to establish a funding floor of not less than \$3.0 million. In the Senate, Senators Betty Simms (SB 783) and Roseanne Bentley (SB 716) have filed bills which would impose penalties for non-compliance in reporting video taxes. Full text of these bills and their current status can be found online at www.house.state.mo.us/bills00/homesrch.htm

◆ The eMINTS Project Professional Development Component

-Submitted by Delores M. "Dee" John

The week of January 17, 2000, MINTs and eMINTs teachers traveled to Tan-Tar-A for professional development. This article describes the professional development component.

The *enhancing* Missouri's Instructional Networked Teaching Strategies (eMINTS) Project, an initiative of the Department of Elementary and Secondary Education, is providing Internet connection and an extensive array of multimedia technologies on the teachers' and students' desks in eighty-eight classrooms across the state. This highly innovative project holds great promise for improving student performance. The eMINTS professional development component addresses high standards, the transformation of teaching strategies to constructivism with the infusion of technologies, and extended on-going training and support for the participating teachers.

Needs

The performance expectations bar has been raised in education today. We must prepare all our young people to be competent and competitive in the global marketplace. "All of Missouri's young people have the capacity to learn at substantially higher levels. Both research and practical experience tell us that many students, from the most gifted to those with the greatest academic needs, are under-challenged in their day-to-day schooling (Meeting the Challenge, 1999, p. 11)." The adoption of the Show-Me Standards and the performance-based assessment of students' learning has raised the expectations for what young people should know and be able to do. Equally important is the acquisition and infusion of technology to support the districts' instructional priorities (Meeting the Challenge, 1999)

The constructivist inquiry-based approach to learning shows high promise for better preparing students for the 21st century. Students are guided and encouraged to take responsibility for their own behavior, higher order thinking, application skills, and technology use. The key to a constructivist perspective is cognition. As learners understand relationships between what they already know and new information, guided by social interactions between students and between students and teachers, they construct their own knowledge. Particularly heartening is the promise shown for all students to improve their performance by using constructivist strategies and instructional technologies (Meeting the Challenge, 1999; Udvari-Solner & Thousand, 1995; Vygotsky, 1978).

The transformation of the teaching and learning environment from direct instruction to student centered inquiry-based instruction, focused on higher order thinking skills and infusing multimedia instructional technologies, is very difficult. These changes pose significant challenges for teachers and require reforms in professional development practices. Intensive professional development experiences with on-going support for the classroom teacher is crucial, if transformation in teaching and learning is to succeed (Coley, Cradler, & Engel, 1997; Darling-Hammond, 1996; Latham, 1999; Meeting the Challenge, 1999). The lack of such support for teachers is a major reason for past failure of educational innovations (Cuban, 1993; Rosen & Weil, 1995; Sarason, 1990).

Building On Effective Practices

The eMINTS professional development component builds on the successes of its pilot, the MINTs project. The MINTs project pioneered the use of high speed Internet connection and the placement of multimedia technologies on the teachers' and students' desks. Intensive professional development and on-going classroom support for the teachers facilitated changing the teaching and learning to constructivist approaches, aligning curriculum with the Show Me Standards, and using the multimedia technologies. The MINTs project outcomes show improvement in student performance, motivated engaged students, collaborative problem solving and use of higher order thinking skills. In essence, the MINTs project outcomes exemplified the goals set forth in the Show Me Standards, guided by Missouri's Outstanding Schools Act of 1993, and the reforms called for in the current literature. In addition to providing guidance for a professional development model, the MINTs teachers are taking a leading role in the training provided for the new eMINTS project teachers.

The eMINTS Professional Development Plan

The eMINTS professional development plan has incorporated critical elements typically not found in previous educational reform, which makes this a promising project: a focus on high standards, transforming teaching and learning, and extended training and on-going support for the participating teachers. The participating forty-four school districts are organized into nine regional eMINTS Clusters. Each Cluster has a Cluster Instructional Specialist (CIS) working with them in

an on-going basis. Extended training sessions are being conducted throughout the school year focusing on inquiry-based instruction, aligning curriculum to the Standards, and infusing the multimedia instructional technologies. The CIS are participating in all the training sessions and provide the eMINTS teachers with follow-up consultation, support, facilitation and assistance in designing inquiry-based instructional experiences for their students.

The participating schools have made a significant commitment to technology and to supporting professional development for their teachers. The teachers are committed to one hundred contact hours of formal professional development all focused on planning and implementing a new way of teaching supported by multimedia instructional technologies.

The eMINTS professional development goals include:

1. To guide and support eMINTS teachers moving to more student-centered inquiry-based instruction, aligning curriculum with the Show Me Standards, and using multimedia instructional technologies to support inquiry-based learning; and,
2. To provide a framework to facilitate consistency in the quality of instruction and accountability in the eighty-eight classrooms.

The eMINTS Professional Development Schedule

The eMINTS Professional Development schedule allows for one-on-one time between the CIS and the eMINTS teacher, monthly sharing sessions where the Clusters can meet and share concerns and successes, and expand their skills for implementing inquiry-based learning strategies infusing technology applications.

Each month there will be several sessions where the Clusters meet for training on specific topics, including but not limited to: presentation and web development software to support inquiry-based instruction, the building of WebQuests (a model of inquiry-based approach to teaching using Internet resources), the creative uses of the technologies to engage students in higher order thinking and problem solving skills.

eMINTS Project Organizational Team

The eMINTS administrative team consists of a Director, Bill Giddings, at MOREnet; a Professional Development Team Lead, Delores “Dee” John, on loan to MOREnet from the University of Missouri-St. Louis; a Resource Development Team Lead, John Wedman, University of Missouri-Columbia; and an Evaluation Team Lead, Bill Elder, OSEDA, UM System.

An eMINTS web site has been created to provide timely information about the project. Educators interested in learning more about the eMINTS training schedule, training resources, and instructional resources or to pose specific questions about the project are encouraged to bookmark the URL and to check it often. The URL is www.emints.more.net/

Resources

Coley, R. J., Cradler, J., & Engel, P. K. (1997). Computers and classrooms: The status of technology in U.S. schools. Princeton, NJ: Policy Education Center, Educational Testing Services.

Cuban. L. (1993). Computers meet classroom: classroom wins. Teachers College Record, 95, 185-210.

Darling-Hammond, L. (1996). What matters most: Teaching for America’s future. National Commission on Teaching and America’s Future. Teachers College, Columbia University, NY, NY.

Latham, A. S. (1999). Computers and achievement. *Educational Leadership*, 56, 5, 87-88.
Meeting the Challenge (1999). Published by the Missouri State Board of Education.
Jefferson City, MO.

Rosen, L. D., & Weil, M. M. (1995). Computer availability, computer experience, and technophobia among public school teachers. *Computers in Human Behavior*, 11, 9-31.

Sarason, S. (1990). The predictable failure of educational reform: Can we change course before it's too late? San Francisco: Jossey-Bass.

Udvari-Solner, A. & Thousand, J. (1995). Promising practices that foster inclusive education. In R. Villa & J. Thousand (Eds.), *Creating An Inclusive School*. Alexandria, VA: ASCD.

Vygotsky, L. (1978). *Minds in society: The development of higher psychological processes*. Cambridge, MS: Harvard University Press.

◆ Update -- US Department of Education Initiatives

Gateway to Educational Materials

Secretary Riley announced a tool that helps teachers pinpoint--from thousands of learning resources on the Internet--the one that is right for their students. Teachers can type a topic, grade level, and other information into the Gateway to Educational Materials (GEM), which then retrieves lessons, instructional units, and other free educational materials from more than 140 websites and organizations. Teachers may also browse materials by subject area and keyword. More than 7,000 items are currently included in GEM, with new GEM consortium members joining and hundreds of items being added each month. www.thegateway.org

After-School Grants & Competition

Vice President Gore announced 125 new grants to support 517 community learning centers. He also announced the availability of applications for new awards under the program, 21st Century Community Learning Centers. This program allows schools to stay open longer to provide children and adults tutoring and homework help; academic enrichment; college prep activities; chorus, band, drama, and the arts; technology education; drug and violence prevention counseling; supervised recreational opportunities; and services for youth with disabilities. A list of grantees and the application are at www.ed.gov/21stcclc/

Distance Learning on the Rise in Higher Education

The number of higher education institutions offering education courses outside the traditional classroom has increased from 33% in 1995 to 44% in 1998, according to a report released last month by the Department's National Center for Education Statistics (NCES). The report also tells that...

- * 79% of public 4-year institutions, as of 1997-98, were offering distance education classes.
- * Distance education course offerings & enrollments have nearly doubled between 1994-95 & 1997-98, as have the number of degree & certificate programs offered.
- * The fastest growth has been in courses provided over the Internet, jumping from 28% of institutions in 1995 to 60% in 1998.

Distance Education at Postsecondary Institutions: 1997-98 is at www.nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2000013

Kennedy Named Principal-in-Residence

Secretary Riley has tapped a Missouri school principal, Carole Kennedy, to be the Department's new principal-in-residence. In this 2-year position, Kennedy will provide a school leader's viewpoint within the Department and serve as a contact for principals around the country.

Kennedy has served as president of the National Association of Elementary School Principals and as a member of the National Assessment Governing Board in 1998. She also served on the Department's America Goes Back to School steering committee in 1996 and helped develop the nationally recognized Parents as Education Partners program. She received Missouri's National Distinguished Principal Award in 1988 and was selected in 1989 by the American Association of School Administrators as one of America's 100 outstanding education administrators. Kennedy has been principal of John B. Lange Middle School since 1997 and also served as principal of New Haven Elementary School (1991-1997), both in Columbia, MO. She was also principal of Conn-West Elementary School in Grandview, MO, from 1981-1991. Before becoming a principal, Kennedy taught elementary and middle school.

◆ **The Missouri Distance Learning Association (MoDLA)**

The Missouri Distance Learning Association (MoDLA) is a state-wide non-profit organization devoted to promoting best practices in distance learning environments. Membership is diverse and inclusive, serving constituents such as K-12, higher education, continuing education, libraries, corporate training, military and government training, and telemedicine. MoDLA advocates equity and access to teachers and learners of all ages and serves as a clearing-house for distance learning information. Be sure to visit their web site at www.modla.org for upcoming events and helpful links and resources. For further information, contact Sally Burnett, Director, MoDLA at burnett@cmsu1.cmsu.edu.

Note: Districts receiving state funding to support their interactive distance learning projects are required to complete the MoDLA survey and update their survey data annually. Data should be completed/updated by no later than February 18, 2000.

◆ **Copyright Question of the Month**

"May an educator (e.g., administrator, classroom teacher, substitute teacher, or student teacher), other district employee, volunteer, or others rent or purchase home use only videotapes from local stores for repeated use in face-to-face instruction?"

Answer: Yes. Repeated use of legally acquired videotapes may be used for face-to-face instruction regardless of the source.

Note: Each video rental store has specific contractual agreements regarding videotape use in schools. Be sure to read the contract carefully to determine specific rights of use.

CAUTION: Videotapes may not be used for reward, entertainment, fund-raisers, time-fillers, etc. They must be used to support curriculum in face-to-face instruction. The instructional use should be documented in curriculum guides and/or written lesson plans.

◆ **Frequently Asked Questions**

"What electronic resources are available to Missouri schools through MOREnet?"

The seven resources listed below may be accessed through www.ebsco.more.net/
Master FILE Elite

Provides full text for nearly 1,200 periodicals covering nearly all subjects including general

reference, business, health, and much more.

Primary Search

Provides full text for over 65 children's magazines and over 300 children's pamphlets, designed for the elementary school student.

The Serials Directory

Provides up-to-date and accurate bibliographic information and pricing for over 155,000 U.S. and international periodicals.

Health Source Plus

Provides full text for over 255 health periodicals, over 1,065 health pamphlets, and 23 health reference books.

EBSCO Animals

Provides in-depth information on a variety of topics relating to animals. The database consists of indexing, abstracts, and full text records describing the nature and habitat of familiar animals.

Funk and Wagnalls New World Encyclopedia

Provides over 25,000 encyclopedic entries. Searchable by subject or keywords within the entry.

Clinical Reference System

Provides over 7,000 reports, in every-day language, describing symptoms, treatments, risks and after-effects of a vast array of medical topics and conditions.

Other available resources:

Free Electronic Encyclopedia

Grolier Multimedia Encyclopedia (*Academic American Encyclopedia*) and *Encyclopedia Americana* are both available to MOREnet customers without extra charge. www.orl.grolier.com

Encyclopedia Americana is published by Grolier Educational from the *Encyclopedia Americana* database, a 25 million-word repository of text and images. It contains approximately 45,000 articles contributed by more than 6,500 specialists. Reading levels vary considerably, with some articles suitable for sixth graders, and others suitable for more sophisticated readers. The length of articles ranges from definition-style entries of fewer than 100 words to lengthy essays comprised of 25,000 words or more. Entries can be searched by article title, full text, subject, place, time and form. Boolean operators, wildcards and proximity operators are also supported.

Grolier Multimedia Encyclopedia is based on the text of the *Academic American Encyclopedia*. This is created for students at the upper elementary level, in junior high school, and above. It offers 35,000 entries that reflect the curricula of American schools. Entries are updated monthly. It can be searched by article title, full text and advanced search using Boolean operators.

Gale Research Databases

Another resource available through the MOREnet connection is Gale DISCovering Authors, DISCovering Science and DISCovering U.S. History. These three databases are available to MOREnet members at no additional cost. www.galenet.gale.com

New Resource:

Beginning February 1, 2000, MOREnet will offer a newspaper database from NewsBank to

replace Newspaper Source from EBSCO. The NewsBank service will be available to all MOREnet customers. This service covers access to the following information resources:

InfoWeb: News Missouri (1997-Current)

WebNews: St. Louis Post Dispatch (1989-Current)

WebNews: Kansas City Star (1991-Current)

You can access the database directly at www.infoweb.newsbank.com or through MOREnet's Database Page at www.more.net/database_services/

◆ Learning With Technology

Featuring Bolivar R-I and Canton R-V

Bolivar R-I

In-Site is a web-based project focused on helping teachers teach and students learn. The site was built and deployed by Bolivar R-I employers and students. A team of teachers and the district technology director have designed and written over forty (40) web-based lessons which focus on improving performance in eighteen key skill areas, particularly in grades 2 through 5. Also, a web-based test-generating program for teachers, a web-based program that helps teachers determine a student's learning style, and a web-based curriculum development program were developed.

In-Site has effectively involved the talents of students in the district. The elementary and upper grades provided much of the artwork for the web site. High school students with web authoring skills were involved in writing, editing, and deploying the lessons. Visit the district's web site at www.bolivar-rl.k12.mo.us/insite for more details about the project.

Canton R-V

When the Canton R-V school district made plans for Tiger Net, it knew it would be a challenge. The plan for this two-year TLCF infrastructure grant started with connecting every part of the school district via a computer network. All faculty and staff have access to a computer, are trained, and are expected to use the network for district communications. Teachers are trained on a variety of software and equipment resources, and are developing a high level of confidence when using technology as an instructional tool. Students are involved in projects which enable them to communicate and collaborate with others. Visit GRANTS link that will open sometime soon in February at www.canton.k12.mo.us

◆ Mark Your Calendar

February

- | | |
|----|--|
| 11 | Lincoln's Birthday (State Offices Closed) |
| 15 | Last day to volunteer as a Technology Plan evaluator |
| 18 | Complete MoDLA I-TV Survey |
| 21 | Washington's Birthday (State Offices Closed) |
| 29 | Complete TLFN Negotiations with Instructional Technology Staff |
| 29 | Look for Technology Manuals in the mail soon! |

March

- | | |
|----|----------------------------------|
| 28 | VIDEO Advisory Committee Meeting |
|----|----------------------------------|

- Missouri School Boards Association, Columbia, MO
10:00 - 2:00 p.m.
- 31 District Technology Plans due to DESE for approval
- 31 Last day to obligate funds for materials, supplies and equipment -- Technology Acquisition and Enhancement, Interactive Television, Competitive Technology and VIDEO Grants

◆Upcoming 2000 Conferences

- February 22-24 Consortium on School Networking: K-12 School Networking Conference
Lowe's L'Enfant Plaza Hotel, Washington, DC
202/466-6296
www.cosn.org
- February 22-25 The 20th Annual Role of Technology in Education Conference
St. Charles, IL
847/419-5065
- February 28- March 2 Florida Educational Technology Conference (FETC)
Orange County Convention Center, Orlando, FL
850/894-3810
FETC@netally.com; www.fetc.org
- March 2-4 Kentucky Teaching and Learning Conference
Louisville, KY
502/564-7168
lsledge@kde.state.ky.us
- March 8 Regional Consortium for Education and Technology (RCET) - Southwest
University Plaza Hotel, Springfield, MO
417/895-2722
www.orion.org/ed/rcet/index.html
- March 13-15 Midwest Education and Technology Conference
America's Center, St. Louis, MO
314/692-1250
christin@info.csd.org
- March 30-31 The National School Technology Leadership Conference
Austin, TX
www.eschoolnews.org/stlc
- April 6-7 Converging Technologies: Reaching Students in the Digital Age
Marriot's Tan-Tar-A Resort, Osage Beach, MO
www.more.net/projects/members/conference/conference00.html
- June 26-28 National Educational Computing Conference
"Connecting @ the Crossroads"
Atlanta, GA
www.neccsite.org

◆Monthly Grant Writing Tip

February—Planned Activities, Timeline and Dissemination

Hopefully, by now you have six grant sections completed, and it's not even April yet! For February you worked on the Planned Activities, Timeline and Dissemination information. Do your planned activities and projected timeline relate to the goal and objectives along with your

need/opportunity? Did you describe the kinds of materials and procedures that will be used or developed? Activities might include: assessment of needs; discussions with parents, teachers, or students; training sessions; periodic assessment of progress in teaching strategies, community cooperation or curriculum alignment. How about dissemination? Did you include information on how you will share the project with community, local and state education?

March Assignments:

1) Write the Planning section. This is **DONE PRIOR TO SUBMISSION OF APPLICATION** and goes along with the calendar given at the beginning. Remember the calendar? If you kept up with it, then this part is easy. You will list month by month all the activities you did, people you called, workshops attended etc. that helped you plan for and write this grant.

2) Make copies of your grant and ask others to read it. Take advantage of another set of eyes to catch silly mistakes. Also, be sure to check updated grant manuals for program changes.

◆Internet Sites of Interest

SCR*TEC, the South Central Regional Technology in Education Consortium, which covers Missouri, has several good resources for teachers. www.4kids.org is a weekly publication that focuses on Web sites for students. It provides a great starting place to launch kids safely on to the Internet. It illustrates and describes kid-friendly web sites that are fun as well as educational. www.4teachers.org provides web lessons and insights on how teachers use technology in their classrooms. Lessons are categorized by subjects and include TrackStar lessons, WebQuests and links and are tied to Missouri Show-Me Standards. Check out www.scrtec.org to find more education technology solutions.

◆From the Mailbag

CTIE Teacher Technology Innovation Award

MU Research Center Looking for Missouri's Innovative Teachers

The Center for Technology Innovations in Education (CTIE) wants to reward teachers who improve their teaching with new technologies. For a second year, CTIE, a research center at the University of Missouri – Columbia College of Education is joining forces with the Southwestern Bell Foundation to offer five unrestricted \$1,000 awards to Missouri K-12 teachers who demonstrate creative applications of technology. This award is a challenge to innovative teachers to come forward by applying for this year's awards.

Jim Laffey, CTIE's director, is hopeful that Missouri's best will demonstrate how the hardware and software present in our schools can impact students. "Last year's applicants demonstrated the many ways that technology is beginning to be put to use in Missouri," says Laffey. "We hope for ever more creative uses as the number of computers and Internet connectivity, including e-mail and web pages is increasing. Hardware, software and the Internet alone will not improve education, however. The creative application of this technology by teachers is what will make a difference. That's what these awards are about!"

1999 recipients represented a cross-section of metropolitan and rural schools from 1st to 12th grades. Jim Laffey is confident that by rewarding and publicizing the work of teachers who are successful in applying technology, Missouri will see gradual but significant increases in technology's usefulness for teachers and students. "The best way for a teacher to get started" says

Laffey "is for them to seek out peers who have been successful and build on their knowledge and experience."

Last year's role models were:

Wanda Hartter - Greenwood Elementary, Lee's Summit RI Grades 4-6. In addition to her duties as teacher, Ms. Hartter has been active in writing grants to purchase equipment for her school. She is not hesitant about letting her 4th, 5th and 6th grade students immerse themselves in the available technologies. By the time her students reach 7th grade, they will have published three years of on-line electronic portfolios showcasing their studies.

Thomas Higgins, Sr. - Linn R-II, Osage County Grades 4-12. Tom is not one to let resources limit his ability to bring the best learning tools to his music students. "Scrounging" around for old PC's from the business lab, Tom was able to start a music lab that brings new vitality to his student's learning. Tom is always trying new software and hardware to provide ever more helpful tools. In fact, his students are "clamoring for more time in the lab." The students' compositions attest to Mr. Higgin's ability to make his teaching interesting and relevant. It is clear that Mr. Higgins has a finely tuned music program.

Michelle Kendrick - Monroe City High School, Monroe City R-I Grades 10-12.

Ms. Kendrick brings her science projects alive by creating engaging multimedia explorations. Her students respond to her challenges with multimedia presentations of their own which showcase their knowledge and joy for learning. Ms. Kendrick does not like computerized tutorials. Instead, she tries to "use technology to make learning more authentic and to make students better communicators."

Cynthia Matzat - Branson Junior High, Branson R-4 Grades 7-8. Ms. Matzat clearly understands the Internet's power for expanding her classroom well beyond the walls of Branson Junior High. Her students have become experts at collaborating with peers from schools across the nation. Each student in this small southern Missouri community has learned to access previously inaccessible national resources. The Internet is more than just a research tool - it is a means for communication and collaboration.

Andrea Williams - Jefferson School, St. Louis Public Schools Grade 1. Ms. Williams was new to technology. In her first year of teaching in a newly renovated city school, Ms Williams has discovered how technology can enable a "cooperative climate" amongst her 1st grade students. Her work at introducing students and parents to the wonders of computers has been instrumental to forming a constructive culture at the "new" Jefferson School.

All of Missouri's K-12 teachers are eligible for this award. Interested teachers simply need to complete and return a short application by the **application deadline of March 31, 2000**. Copies of the application form can be found at CTIE's web site at www.ctie.missouri.edu. An awards review panel will be looking for applicants who demonstrate outstanding approaches to a) achieving a high impact on learners by integrating technology in the classroom b) promoting the use of technology in their schools and c) planning for the continued creative use of technology. Award recipients will be announced on May 15th.

CTIE, a research center supported by the University of Missouri-Columbia College of Education, has been developing ways to accelerate the development and implementation of technology in education. In the past four years, CTIE has conducted varied research to advance knowledge in applied technology. This includes the development of Internet based tools for problem based

learning, the design of technology planning and implementation strategies and tools for educators and the digitization of materials and development of retrieval systems for library media. One of the most recent projects called Internet Schools™ provides schools with guidelines and software to set-up virtual desktops called Shadow netWorkspace™ for each student.

Additional information about CTIE's work can be found on their web site or by calling (573) 884-8350.